

## Safe Lock

More than two decades ago, NASA and the Navy jointly sponsored development of an "acoustic pinger," an underwater transmitting device for location and recovery of sounding rocket research payloads lowered by parachute to the ocean. The device was developed under contract to Langley Research Center by Burnett Electronics Lab, Incorporated, San Diego, California. Pinger spinoffs have now been installed on flight recorders in virtually every commercial aircraft.

The development spawned a broad line of Burnett underwater sound/search systems and related equipment used for such widely varied purposes as distress signal transmission for scuba divers, position location for drilling ocean core samples, and military location/recovery of submerged mines (the device was used in Operation Desert Storm).

Long functioning life is a vital requirement for Burnett's underwater pingers; efficient power management is the key to extended lifetime. In what amounts to a spinoff from a spinoff, Burnett Electronics modified the microprocessor-based unit that manages power distribution for the company's line of sound/search systems and used it as the basis for a new product: a battery-powered microprocessor-controlled spring

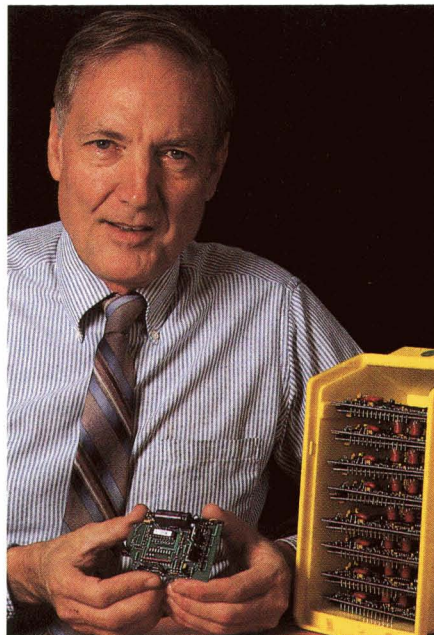
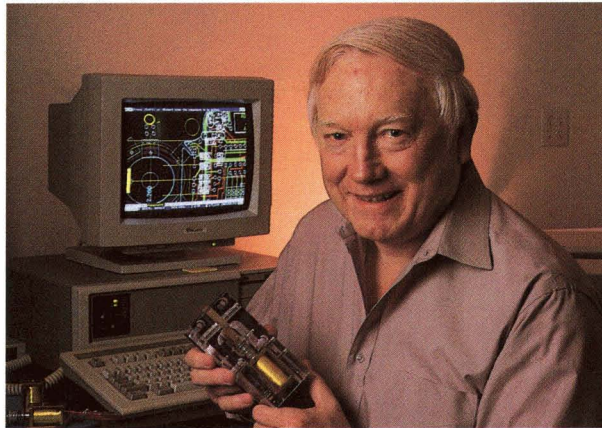
latch for home or office safes. In the **upper photo**, Frank Fogelman, president of KeyOne, Inc., San Diego, California, is holding a Model 1150 electronic spring latch; KeyOne is marketing the Burnett-developed device. In the **lower photo**, Don Burnett, president of Burnett Electronics, displays the time

delay board, the element of the Model 1150 that represents the pinger-spinoff technology.

The Model 1150 is intended for use in timed entry safes, typically used by convenience stores and other businesses with high cash turnover. The latch provides controlled and timed access to the inner and outer compartments of a safe.

Outer safes are generally used for petty cash and accessed frequently. The bulk of a business' daily money intake is dead-dropped into the inner safe, which operates under different time sequences (for example, once a day for armored car pickup).

Model 1150 employs the pinger power management technology to get long life out of the battery power source. Burnett Electronics and KeyOne say that the system offers a clear signal with less noise interference and battery power makes the unit less susceptible to outside influences — such as system override by thieves — than AC electric current.



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